

REMARKS

The applicant responds to the Office Action of October 8, 2002, in accordance with 37 C.F.R. § 1.111. Reconsideration of this application is respectfully requested.

Claims 1 through 18 are pending in the application. Claims 1 through 6, 8, 11 through 14, 17, and 18 are amended, and claim 7 is canceled by this response.

The applicant acknowledges receipt of the Notice of Draftsperson's Patent Drawing Review. Formal drawings will be filed upon receipt of a Notice of Allowability of the application.

No additional fees are due.

1. Objection to the Specification

The Examiner objects to the specification under 37 C.F.R. § 1.77(b), stating that the "brief description of the drawings" section is located within the section for "detailed description of invention" and is without a subheading. The applicant amends the specification to overcome this objection. This objection should be withdrawn.

2. Objection to Claim 7

The Examiner objects to claim 7 under 37 C.F.R. § 1.75(c), stating that the claim is of improper dependant form for failing to further limit the subject matter of the previous claim. Claim 7 is canceled by this response. This objection is moot.

3. Rejection of Claims 1, 3 through 5, 7, and 12 under 35 U.S.C. § 112, Second Paragraph

The Examiner rejects claims 1, 3 through 5, 7, and 12 under 35 U.S.C. § 112, second paragraph, stating that the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner lists several

objections to the claims. The applicant amends claims 1, 3 through 5, 7 and 12 to address the Examiner's concerns. This rejection should be withdrawn.

4. Rejection of Claims 1 through 18 under 35 U.S.C. § 102(b)

The Examiner rejects claims 1 through 18 under 35 U.S.C. § 102(b), stating that the claims are clearly anticipated by U.S. Patent Number 2,945,588 to Fenn et al. The applicant traverses this rejection and requests reconsideration.

The Fenn et al. patent fails to disclose the step of "adapting a synchronous motor to act in response to a predetermined signal to cause the said rotations of said deflector member" as recited in independent claims 1 and 2. The claimed use of a synchronous motor to effect the rotation of a deflector member provides the unexpected result of a smooth removal of a selected article. The synchronous motor provides such advantages as an extremely fast response time, a readily and easily programmable rotation of the deflector member, and a rapid return of the deflector member to its original position. (See the specification on page 7 at lines 10 through 17.)

The Fenn et al. patent discloses that "[t]he plunger 74 of the solenoid 44 is connected by a tension spring 75 to an arm 76 on the shaft 72 so that as the solenoid is energized, the shaft is rotated to swing the ejector arm 73 into engagement with the detected clean bottle or container as shown in Figure 9, and across the conveyor B as shown in Figure 10 to push the container onto the take-off table." (See the Fenn et al. patent in column 4 at line 71 through column 5 at line 3.) The Fenn et al. patent does not disclose the synchronous motor as required by claims 1 and 2.

The Fenn et al. patent also fails to disclose an article deflector member that is "rotatable by said [synchronous] motor out of said pathway to allow subsequent unselected articles to continue traveling along said pathway without contacting said deflector member" as recited in independent

claims 8 and 14. The sensing wheel 45 of the Fenn et al. patent holds back oncoming bottles so that an unclean bottle can be moved from the conveyor. (See the Fenn et al. patent in column 4 at lines 25 through 30.) However, the Fenn et al. patent discloses that "[t]he ejector arm in this position also prevents the advance of the succeeding containers if and when the wheel 45 should fail to stop the containers." (See the Fenn et al. patent in column 5 at lines 3 through 6.)

An Examiner is required to support a rejection based upon anticipation with a reference that discloses each and every limitation of the claimed invention. The Fenn et al. patent fails to disclose the synchronous motor as claimed in independent claims 1, 2, 8, and 14 as discussed above. Therefore the rejection of claims 1 through 18 should be withdrawn.

5. Rejection of Claims 1, 3 through 6, and 8 through 18 under 35 U.S.C. § 102(b)

The Examiner rejects claims 1, 3 through 6, and 8 through 18 under 35 U.S.C. § 102(b), stating that the claims are clearly anticipated by U.S. Patent Number 4,549,272 to Hagan et al. The applicant traverses this rejection and requests reconsideration.

The Hagan et al. patent fails to disclose the deflector member as recited in independent claims 1, 8, and 14. The three article diverting mechanisms 210, 212, 214 disclosed in the Hagan et al. patent fail to contact, controllably sweep, and remove a selected article from said stream of articles as recited in claims 1, 8, and 14. The diverting mechanisms 210, 212, 214 of the Hagan et al. patent are blades that merely "pivot to the broken line position shown in FIG. 4 so as to divert an article from conveyor 208." (See the Hagan et al. patent in column 10 at lines 47 through 48

and 59 through 61.) The diverting mechanisms of the Hagan et al. patent block a selected bottle from continuing in its path and divert the selected bottle from the conveyer. The diverting mechanisms 210, 212, 214 therefore fail to controllably sweep the selected bottle as required by claims 1, 8, and 14.

An Examiner is required to support a rejection based upon anticipation with a reference that discloses each and every limitation of the claimed invention. The Hagan et al. patent fails to disclose the deflector member as claimed in independent claims 1, 8, and 14 as discussed above. Therefore the rejection of claims 1, 3 through 6, and 8 through 18 should be withdrawn.

6. Rejection of Claims 1 through 18 under 35 U.S.C. § 102(b)

The Examiner rejects claims 1 through 18 under 35 U.S.C. § 102(b), stating that the claims are clearly anticipated by U.S. Patent Number 4,142,636 to Planke and German Patent Document DE 2,728,473. The applicant traverses this rejection and requests reconsideration.

The Planke patent fails to disclose a deflector member as claimed in claims 1 through 18. The Planke patent discloses an apparatus for sorting containers that includes a central control unit that controls a series of gates along a transport path. The central control unit sends a control signal to a magnetic valve that causes operation of a pneumatic cylinder and opening for each gate along the transport path. (See the Planke patent in column 4 at lines 36 through 42.) A selected bottle is diverted from the transport path when it hits a closed gate. (See the Planke patent in column 5 at line 3 through 6.) The gates of the Planke invention merely block and divert selected containers from the transport path and do not controllably sweep a selected article from a pathway as required by claims 1 through 18.

The German Patent Document does not appear to disclose any additional information than that information disclosed in the Planke patent.

An Examiner is required to support a rejection based upon anticipation with a reference that discloses each and every limitation of the claimed invention. The Planke patent and the German patent document each fail to disclose the deflector member as claimed in claims 1 through 18 as discussed above. Therefore this rejection should be withdrawn.

7. Rejection of Claims 2 and 7 under 35 U.S.C. § 102(b)

The Examiner rejects claims 2 and 7 under 35 U.S.C. § 102(b), stating that the claims are clearly anticipated by U.S. Patent Number 4,694,158 to Leser. The applicant traverses this rejection and requests reconsideration. The applicant notes that claim 7 has been canceled by this response.

The Leser patent fails to disclose a deflector member that slightly deviates from the vertical toward said pathway as recited in claim 2. The Leser patent discloses a method and a device by means of which it is possible to perform the "contactless" inspection of objects manufactured automatically at high speed. (See the Leser patent in column 1 at lines 6 through 9.) The Leser patent discloses "a thruster arm 96 integral with a pin 97 driven by a motor 98 operated by the processor 99 to which it is connected via the electrical line 100." (See the Leser patent in column 9 at lines 40 through 43.) The thruster arm 96 of the Leser patent "is actuated so as to rotate about the pin 97 in the direction of arrow 101, thereby pushing the bottle 102." (See the Leser patent in column 9 at lines 47 through 49.) However, the Leser patent does not disclose that the thruster arm 96 slightly deviates from the vertical toward said pathway as required by claim 2.


An Examiner is required to support a rejection based upon anticipation with a reference that discloses each and every limitation of the claimed invention. The Leser patent fails to disclose the deflector member as recited by claim 2 as discussed above. Therefore this rejection should be withdrawn.

8. Conclusion

The application is believed to be in condition for allowance. Favorable consideration is requested.

Respectfully submitted,

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Date


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APPENDIX
VERSION WITH MARKINGS SHOWN

IN THE CLAIMS:

Please cancel claim 7 without prejudice.

Please amend claims 1 through 6, 8, 11 through 14, 17, and 18 as follows.

1. (Amended) A method for diverting articles selected for removal from a stream of articles [travelling] traveling along a pathway on a conveyor, said method comprising the steps of:

 locating a deflector member adjacent to said pathway [a deflector member adapted to rotate];

rotating said deflector member into said pathway; [to contact]

contacting a selected article; [and]

 controllably [sweep] sweeping and removing said selected article[s] from said stream of articles;

 [following removal of each selected article from said stream]

 further rotating said deflector member [thereby removing same] out of said pathway to allow subsequent non-selected articles in said stream to continue along said pathway without being impeded by said deflector member; and

 adapting a synchronous motor to act in response to a predetermined signal to cause the said rotations of said deflector member.

2. (Amended) A method for diverting beverage containers selected for removal from a stream of beverage containers [travelling] traveling along a pathway on a conveyor, said method comprising the steps of:

 locating a deflector member adjacent to said pathway [a deflector member adapted to rotate], wherein said deflector member slightly deviates from the vertical toward said pathway;

rotating said deflector member into said pathway; [to contact and]

contacting a selected beverage container;

 controllably [sweep] sweeping and removing a selected beverage container from said stream of [articles] beverage containers;

[following removal of each selected beverage container from said stream,]

reversing the rotation of said deflector member; [thereby] removing [same out of] said deflector member from said pathway to allow subsequent non-selected beverage container in said stream to continue along said pathway without being impeded by said deflector member; and
adapting a synchronous motor to act in response to a predetermined signal to cause the said rotations of said deflector member.

3. (Amended) The method according to Claim 1 or 2 wherein said deflector member is adapted to initially contact said selected article or said selected beverage container [at about a] adjacent its centre of gravity [thereof].

4. (Amended) The method according to Claim 1 or 2 wherein said deflector member is adapted to initially contact said selected article or said selected beverage container at, or in a zone, immediately adjacent to and below, [a] its centre of gravity [thereof].

5. (Amended) The method according to Claim 1 or 2 wherein [the] a degree of and/or [the] a speed of rotation of the deflector is variable and is determined by the predetermined signal to achieve a desired lateral movement of [the] said selected article or said selected beverage container from [the] said stream of the selected articles or said stream of selected beverage containers.

6. (Amended) The method according to Claim 4 wherein said signal originates from a sensing device and which identifies a specific condition selecting [the] said article or said beverage container for rejection.

8. (Amended) A device for diverting an article selected for removal from a stream of articles [travelling] traveling along a pathway on a conveyor said device comprising: [in combination] a synchronous electric motor; and an article deflector member, [the latter being adapted to be:] wherein the deflector member is

- (i) located adjacent said pathway;
- (ii) rotatable by said motor into said pathway to contact and controllably sweep a selected article from said stream and,
- (iii) rotatable by said motor out of said pathway to allow subsequent unselected articles to continue [travelling] traveling along said pathway without contacting said deflector member[.].

11. (Amended) The device according to Claim 9 wherein said motor is adapted to rotate said deflector member out of said pathway by rotating [same] said deflector member in a reverse direction to said first rotation.

12. (Amended) The device according to Claim 8, further comprising a [which is provided with] bracket means to secure [same] said device to an associated conveyor.

13. (Amended) The device according to Claim [11] 12 wherein said bracket means is provided with an adjusting means adapted to allow [the] a position of said article deflector means to be varied in a vertical and/or horizontal position relative to said pathway of said associated conveyor.

14. (Amended) A device for diverting an article selected for removal from a stream of articles [travelling] traveling along a pathway on a conveyor said device comprising [in combination] a conveyor[,];
a synchronous electric motor; and
an article deflector member, [the latter being] wherein said article deflector member is located adjacent said pathway, [and] rotatable by said motor into said pathway to contact and [controllable] controllably sweep a selected article from said stream, and rotatable by said motor out of said pathway to allow subsequent unselected articles to continue [travelling alon] traveling along said pathway without contacting said deflector member.

17. (Amended) The device according to Claim 14 or 15, further comprising [which is provided with] a bracket means to secure said deflector member to said conveyor.

18. (Amended) The device according to Claim 14 [whrein] wherein said bracket means [is provided with] comprises an adjusting means adapted to allow the position of said article deflector means to be varied in a vertical and/or horizontal position relative to said pathway of said conveyor.